

DWS Vaal Proto CMA: Grootdraai Catchment
Water Quality Status of the Grootdraai Dam Catchment (Aug Oct 2018

Sample Point	Sample description	Months	Conductivity(mS/m@25C)	Chloride (mg/l)	Ammonia (mg/l)	Nitrate (mg/l)	Phosphate (mg/l)	pH	Sulphate (mg/l)	Chemical Oxygen Deman	E.coli (counts/100ml)
VE	Final Effluent @ Breyten Sewage Works to Vaal River	Aug	111	71	43	0.42	2.2	7.55		130	216000
		Sep	105	79	37	0.3	1.9	7.33		110	210000
		Oct	101	85	31	<0.20	2	7.36		65	290000
VE	Vaal River origin @ N17 Bridge	Aug	15.5	17	<0.10	0.45	<0.20	7.47	14	<10	<1
		Sep	19.3	18	1.1	0.28	<0.20	6.53	38	<10	5
		Oct	11.6	20	<0.10	<0.20	<0.20	6.6	23	<10	9
VE	VS2 Vaal River @ R29/N2 Bridge at Camden	Aug	18.4	15	<0.10	0.42	<0.20	7.75	16	<10	4
		Sep	19.6	17	0.71	0.32	<0.20	7.15	21	<10	7
		Oct	17	25	0.34	<0.20	<0.20	7.44	21	<10	6
VE	Humanspruit D/S of Delta Mine	Aug	71.9	74	27	0.45	0.97	7.18	78	351	12000
		Sep	84.2	66	21	0.31	4.4	6.72	35	143	43000
		Oct	54.2	65	1.5	0.96	0.7	6.93	45	42	6000
VE	Witpunspruit @ Usutu Mine	Aug	240	29	0.84	0.65	<0.20	2.91	2669	<10	<1
		Sep	228	19	2.4	0.29	<0.20	2.73	1720	<10	<1
		Oct	130	31	0.37	<0.20	<0.20	3.02	3920	<10	<1
VE	Witpunspruit @ R29/N2 Camden Bridge	Aug	205	38	0.56	0.9	<0.20	2.84	2894	<10	<1
		Sep	179	26	2.4	0.37	<0.20	2.47	2943	<10	<1
		Oct	128	28	0.6	0.26	<0.20	2.89	4092	<10	<1
VRA	VS3 Vaal River on N11 Bridge to Amersfoort	Aug	17.7	10	<0.10	0.43	<0.20	8.13	12	<10	70
		Sep	24.3	16	0.58	0.28	<0.20	7.85	29	<10	5
		Oct	11.1	10	0.14	<0.20	<0.20	7.43	16	<10	7
VRA	Final Effluent @ Amersfoort Sewage Works	Aug	63.6	54	30	0.44	1.9	7.5		233	1900000
		Sep	85.3	63	43	<0.20	5	6.94		244	1400000
		Oct	62.1	62	27	0.43	2.1	7.23		127	220000
VRA	Rietspruit @N11 Tapfontein Bridge Between Ermelo and Amersfoort	Aug	19.8	12	<0.10	1.2	<0.20	7.77	23	<10	304
		Sep	45.1	29	0.72	0.52	<0.20	8.61	57	<10	<1
		Oct	53.9	48	0.2	0.24	<0.20	8.5	49	<10	8
VK	GDDC06 Spruit at Old Spitzkop	Aug	65.9	11	<0.10	<0.20	<0.20	7.88	273	64	
		Sep									
		Oct	147	29	0.1	<0.20	<0.20	7.15	21	21	
VK	GDDC04 Douglas Inflow at N11 Bridge	Aug	65.7	11	<0.10	<0.20	<0.20	7.43	270	207	
		Sep									
		Oct	73.3	20	<0.10	<0.20	<0.20	6.76	2419	18	
S-ESW	Ermelo Sewage Works Final Effluent to Klein Drinkwater Spruit	Aug	71.7	65	39	0.55	1.8	6.9		100	1700000
		Sep	97.5	69	196	0.26	4	6.29		80	420000
		Oct	72	65	27	<0.20	2.1	6.81		161	700000
VK	Brummerspruit @ N17 D/S Ermelo S/W	Aug	59.3	46	21	0.45	0.93	7.34		106	99000
		Sep	73	45	32	0.25	2.5	7.09		110	120000
		Oct	42.5	42	12	<0.20	0.74	7.16		72	88000
vbs	GDDC15 Blesbokspruit 150 IS @ R38 Bridge Topfontein on	Aug	78.3	13	0.1	1.8	0.1	8.2	81	30	1800
		Sep	86	77	17	0.77	3.1	7.26	57	20	<1
		Oct	59.6	18	0.1	5.4	0.1	8.1	41	65	250
S-BETHAL	Final effluent @ Bethal Sewage Works in	Aug	51.4	53	0.48	0.35	0.21	7.58		31	2600
		Sep	56.8	56	<0.10	7.9	5.6	6.67		<10	170

	Blesbokspruit	Oct	31.7	52	2.7	0.43	0.5	6.76		<10	4000
VBB	Blesbokspruit D/S of Bethal Sewage Works	Aug	73.9	81	0.54	0.58	<0.20	8.27		24	190
		Sep	82.6	66	0.88	0.25	<0.20	7.56		<10	2
		Oct	70.3	111	0.39	<0.20	<0.20	7.95		<10	280000
vbs	VS2 -3 Blesbok Spruit @ R39 Bridge Rietvley	Aug	52.1	57	<0.10	0.47	<0.20	7.98	70	<10	25
		Dec	66.2	53	0.84	0.28	<0.20	7.49	75	53	<1
		Oct	52.5	69	<0.73	<0.20	<0.20	7.85	47	<10	62
ND_LEEU	Leeuspruit D/S of New Denmark Colliery	Aug	24.8	17	<0.10	0.16	<0.20	8.38	42	<10	25
		Sep	30	17	0.8	0.29	<0.20	7.39	47	<10	4
		Oct	21.5	16	<0.10	<0.20	<0.20	8.19	34	<10	10
ND_LEEU	VS2-4 Leeuspruit at R39 Welbedacht Bridge	Aug	40.1	34	<0.10	0.47	<0.20	8.16	68	<10	25
		Sep	39.4	31	0.83	0.31	<0.20	7.44	60	<10	5
		Oct	37.5	45	0.22	<0.20	<0.20	8.19	70	<10	38
VAS	VS4 GDDC11 Vaal River @ R35 Bloukop Bridge	Aug	46.7	20	0.15	1.7	<0.20	7.84	37	<10	42
		7	28.7	28	0.94	1.8	<0.20	7.77	57	<10	<1
		Oct	27.8	19	0.2	2	<0.2	7.6	24	<10	7
VAS	Grootdraai Dam on Vaal River Near Dam Wall	Aug	21	14	<0.10	0.52	<0.20	7.83	40	<10	34
		Sep	26.2	16	0.73	0.42	<0.20	7.01	43	<10	4
		Oct	17.9	15	<0.10	<0.20	<0.20	7.09	35	<10	26

Water Quality Guidelines

	- Ideal
	- Acceptable
	- Tolerable
	- Unacceptable
	- No Data/ not analysed

Sub Catchment

Vaal Origin - VE, S-ESW

Schulpspruit - VKV, VRA, ZD

Brummerspruit- VK,VKR, VKK

Blesbokspruit - VBS, VBB, S-Bethal

Leeuspruit- ND-Leeu, S-TUTU, S-ND-South

Majuba- VB, VAS, VGK, S-Majuba